U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
American Zinc Products Fire - Removal Polrep
Initial and Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject:	**POLREP #1** **Initial and Final** **American Zinc Products Fire** **Mooresboro, NC** **Latitude: 35.1916330 Longitude: -81.8488390**
To:	James Webster, USEPA R4 ERRPB Celeste Sugg, NCDENR
From:	Kenneth Rhame and Kevin Eichinger, FOSC
Date:	5/1/2019
Reporting Period:	4/28 to 5/1 2019

1. Introduction

1.1 Background

Site Number:	C489	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	4/28/2019	**Start Date:**	4/28/2019
Demob Date:	5/1/2019	**Completion Date:**	5/1/2019
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

CERCLA
Emergency Response
PRP Lead

1.1.2 Site Description

American Zinc Products is a industrial processing, zinc recycling facility.

1.1.2.1 Location

American Zinc Products
484 Hicks Grove Rd,
Mooresboro, Rutherford County NC 28114

1.1.2.2 Description of Threat

An industrial fire started at the facility due to unknown causes threatening nearby residents to exposure of smoke and other contaminants related to zinc recycling processes. Fire suppression run-off threatened to enter the Broad River via the storm water conveyance system.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Prior to mobilizing to the Site, U.S. EPA learned through state and local responders that the building involved in the fire had a basement containing 600,000 gallons of 17%sulfuric acid, lead anodes, manganese, and electrolyte solution. An initial estimate of 1 million gallons of fire suppression water was used in an attempt to extinguish the fire. The estimate was later corrected to more than 3 million gallons. Although the storm water discharge valve was closed, NC DEQ Water Resources observed a seep at the storm water discharge that had a pH of 1.8 entering the Broad River. A half mile evacuation was advised by Rutherford County Emergency Management due to concerns regarding smoke and air emissions emanating from the fire.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

American Zinc Products Fire, Mooresboro, NC: A fire started at approximately 19:30 on 4/28/2019 at a tank located outside the “Cell House”. The tank contained approximately 4,700 gallons of solution consisting of sulfuric acid, manganese and dissolved zinc with electrolyte. Fire spread to inside the “cell house” that had a 600,000 gallon basement. The basement contained water, 17%sulfuric acid, lead anodes and electrolyte.

Fire fighters used more than 3 million gallons of fire suppression water in an attempt to extinguish the fire. Fire fighting efforts began to exhaust the municipal water supply. The fire initially was thought to have expanded to the “casting building”. The casting building contained molten zinc metal. Due to lack of water and other fire fighting resources, fire extinguishing efforts ceased. After further assessment it was determined that the fire had not impacted the "casting building.

A half mile evacuation distance was advised by Rutherford County Emergency Management. A shelter was established at Chase Middle School. Portions of Hwy 221 in both NC and SC were closed.

NC DEQ Water Resources assessed the water run-off at the storm water retention pond discharge to the Broad River. The bottom lagoon next to the river had approximately 8 to 9 feet of freeboard with water continuing to enter lagoon. A seep at the storm water outfall was observed with an estimated discharge rate of a half gallon per minute entering the Broad River. The seep had a pH of 1.8.

2.1.2 Response Actions to Date

EPA and Superfund Technical Assessment and Response Team (START) responded and integrated into Unified Command. The fire occurred in a large-scale zinc electroplating section of the facility. The fire caused the release of Sulfuric Acid, Sulfur Dioxide, Hydrogen Sulfide, Particulate Matter and other Voltile Organic Compounds (VOC) to the air.

CTEH, contractors hired by the Potentially Responsible Party (PRP), began conducting onsite and community air monitoring. CTEH also collected air samples for offsite analysis. EPA contractors began roving air monitoring in the morning of April 29. Elevated readings of sulfuric acid (50 parts per billion (ppb)) at the church across the street from American Zinc Products facility and up to 30 ppb in a residential neighborhood downwind) were detected throughout the ½ mile evacuation zone in the early morning and tapered off to zeros in the late morning as temperatures warmed up.

In the afternoon of April 29, START conducted surface water sampling and water quality monitoring at the discharge point from the facilities detention ponds. Samples will be sent offsite for TAL metals and pH. Water quality monitoring indicated that the area directly at the outfall is neutral.

EPA resumed fixed and mobile air monitoring at 2000 hours to determine if air quality changes during the nighttime inversion. Air monitoring continued through the night and into the morning of April 30.

A Unified Command (UC) meeting was held at 0800 hours on April 30. EPA and CTEH presented the air monitoring data. Air quality throughout the community returned to background levels. After a review by

State and Local Health Departments, Rutherford County Emergency Management lift the ½ mile evacuation.

After the UC meeting, OSC Eichinger met with American Zinc Management to discuss remediation and completed a site assessment.

The fire in the damaged section of the facility is largely extinguished. The remaining material that is smoldering is believed to be fiberglass reinforced plastics building material. This smoldering building material will either self-extinguish or will be extinguished during the demolition. Demolition is required to access the smoldering material, and this cannot be completed unit the fire investigation is completed, and demolition equipment arrives on site. The plume is very small to nonexistent.

The electroplating unit has a concrete sump that acts as secondary containment. The firefighting runoff water/chemicals were pumped out of the secondary containment back into their process to recover any metals. The area around the electroplating unit is designed to act as additional containment. All firefighting water has been removed from this area and crews are actively cleaning the concrete. These areas are currently segregated from the rest of the stormwater management systems. Other impacted areas of the stormwater system are being pumped out and cleaned. All collected firefighting runoff water is managed through the facilities processing system to remove any metals. There is a significant amount of freeboard available to handle rain events. There are no currently no discharges from the outfall to the river. American Zinc with manage any stormwater following their existing NPDES/Stormwater Permit.

A site remediation plan is being developed. Air monitoring will continue through the cleanup operations. Plans will be provided to NCDEQ and EPA.

EPA and START demobilized from the Site on May 1, 2019

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

American Zinc Products

2.2 Planning Section

The PRP is still actively removing firefighter runoff water from the facility and cleaning the plant in preparation for forecast rains.

EPA demobilized from the site and the long term cleanup will be managed by the PRP with state NC DEQ oversight.

PRP will submit remediation plans to NC DEQ.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.